

# Rocky Branch Monitoring Sites

## Monitoring Data Summary for June 8<sup>th</sup>, 2017 – July 12<sup>th</sup>, 2017

### *Data Gaps*

- The ROCA station did not record any interruptions in the dataset during this monitoring period.
- The ROCB station experienced turbidity fouling from July 3<sup>rd</sup>-4<sup>th</sup> so this period was removed from the dataset.

### *SCDHEC Standards*

- The ROCB station did not record any pH readings outside of the acceptable SCDHEC range of 6 to 8.5. However, the pH at ROCA exceeded the standard on June 30<sup>th</sup>, during a storm event, when Rocky Branch exhibited an abnormal storm event response, possibly as the result of a potential illicit discharge.
- The ROCA and ROCB stations recorded average DO concentrations of 6.7 mg/L and 7.3 mg/L, respectively, which are well above the SCDHEC daily average minimum standard of 5 mg/L.
- The minimum DO concentration recorded at the ROCA and ROCB stations were both 5.0 mg/L, which is well above the SCDHEC discrete minimum standard of 4 mg/L.

### *Storm Events*

- The ROCA station recorded nine storm events during this monitoring period, resulting in 6.4 inches of precipitation, and the ROCB station recorded eight storms, resulting in 6.7 inches of precipitation.
- The ROCA and ROCB stations exhibited typical responses to storm events during this monitoring period. However, the ROCA station experienced an abnormal storm event response for pH on June 30<sup>th</sup>.
- The maximum antecedent dry time since the last significant precipitation event (at least 0.1 inches) was approximately 9.8 days in the Rocky Branch watershed and occurred prior to the storm event on June 16<sup>th</sup>.

### *Potential Illicit Discharges and Abnormal Events*

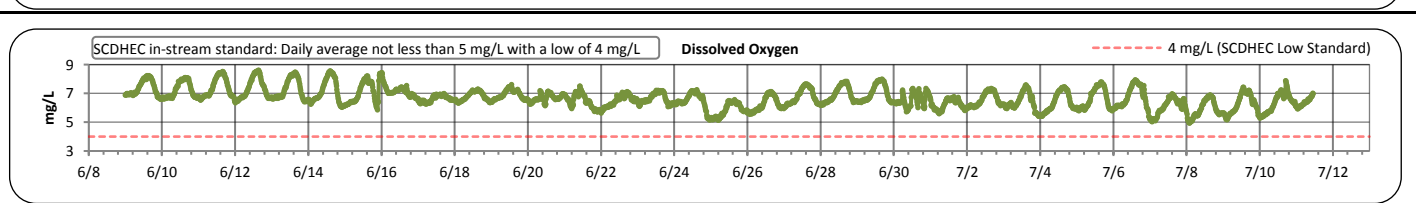
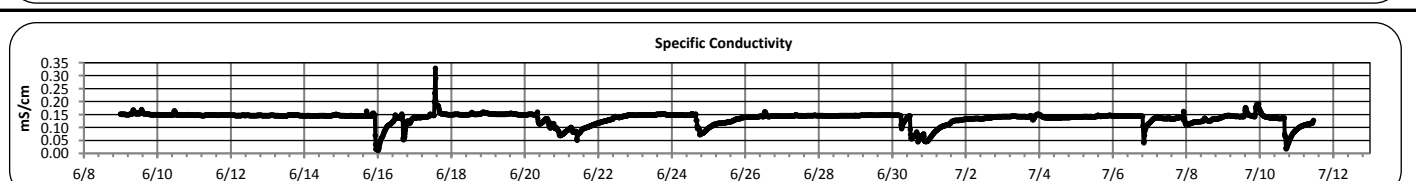
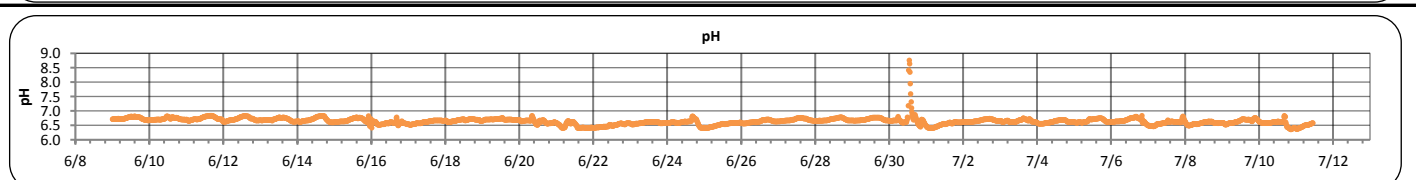
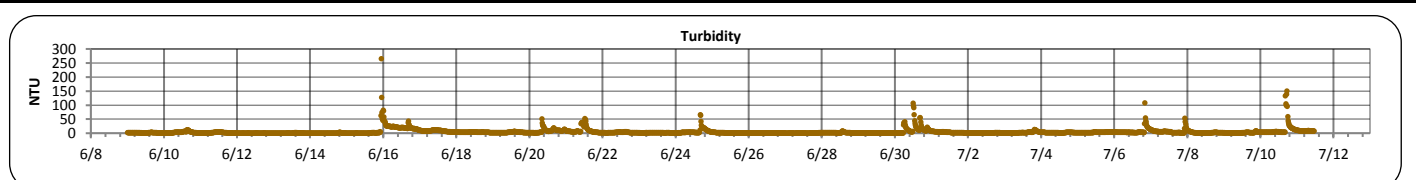
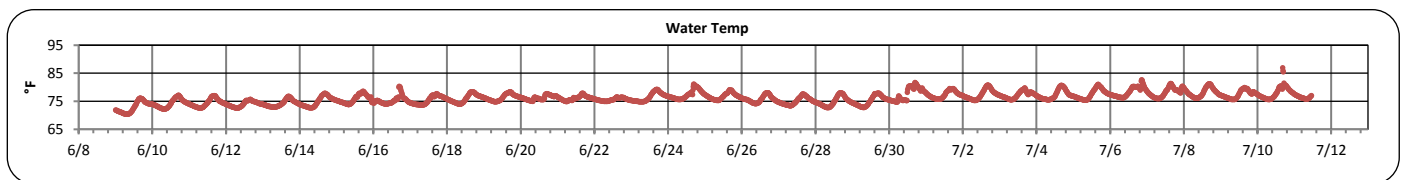
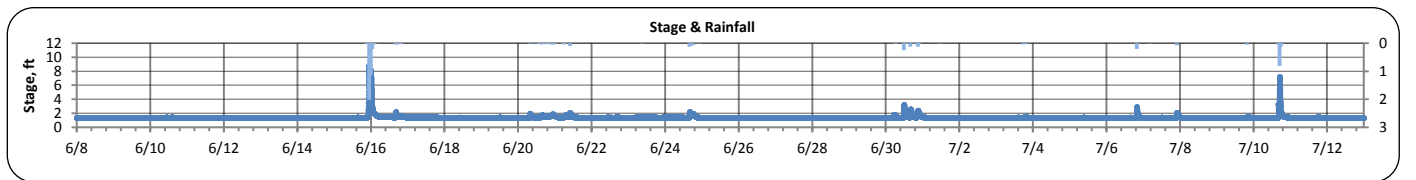
- At ROCA, several abnormal trends were noted during this monitoring period:
  - Slightly elevated specific conductivity levels that took place on: June 9<sup>th</sup>, 10<sup>th</sup>, 26<sup>th</sup>, 30<sup>th</sup>, July 8<sup>th</sup>, 9<sup>th</sup>, and 9<sup>th</sup>-10<sup>th</sup>.
  - On June 17<sup>th</sup>, a considerably large increase in specific conductivity was observed. These fluctuations were likely the result of maintenance procedures at the Maxcy Greg pool.
  - On June 30<sup>th</sup>, pH exhibited an abnormal storm event response, possibly as the result of a potential illicit discharge.
- At ROCB, several abnormal trends were noted during this monitoring period:
  - Slightly elevated specific conductivity levels that took place on: June 9<sup>th</sup>, 12<sup>th</sup>-13<sup>th</sup>, 19<sup>th</sup>, 26<sup>th</sup>-27<sup>th</sup>, 28<sup>th</sup>, July 2<sup>nd</sup>, and 5<sup>th</sup>-6<sup>th</sup>.
  - There were several occurrences of slightly increased turbidity levels observed. These took place once each day from June 9<sup>th</sup>-15<sup>th</sup>, 26<sup>th</sup>-27<sup>th</sup>, and 28<sup>th</sup>.

### *Flow Measurements*

- No flow measurements were taken in this watershed during this monitoring period.

**Rocky Branch A (June 8, 2017 -- July 12, 2017)**

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Rocky Branch	STAGE (FT):	1.3	8.8	1.4	1.4	0.3
LOCATION:	Maxcy Gregg Park	TEMPERATURE (°F):	70	87	76	76	2
ADDRESS:	1650 Park Circle Columbia, SC 29201	TURBIDITY (NTU):	1	266	3	5	11
COORDINATES:	34.995864, -81.021842	pH:	6.4	8.8	6.7	6.7	0.1
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.012	0.329	0.145	0.136	0.024
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	5.0	8.6	6.7	6.7	0.7
SPATIAL LOCATION:	Most upstream site						
TOTAL NO. STORMS OVER 0.1 INCH:	9						
MAX. DAILY RAINFALL:	3.2 inches						
TOTAL RAINFALL (FOR PERIOD):	6.4 inches						



Note: Data gaps appear when the sonde is removed for calibration or when the flow depth is below the sensors

**Continuous Water Quality  
Monitoring Periodic Report**

**Rocky Branch A (June 8, 2017 -- July 12, 2017)**

**Explanation of Statistics:**

<b>MINIMUM OBSERVED</b>	The minimum of the values recorded by the datasonde in 15 minute intervals.
<b>MAXIMUM OBSERVED</b>	The maximum of the values recorded by the datasonde in 15 minute intervals.
<b>MEDIAN OBSERVED</b>	The median of all the values recorded by the datasonde in 15 minute intervals.
<b>MEAN OBSERVED</b>	The average of all the values recorded by the datasonde in 15 minute intervals.
<b>STANDARD DEVIATION</b>	The standard deviation of all the values recorded by the datasonde in 15 minute intervals.

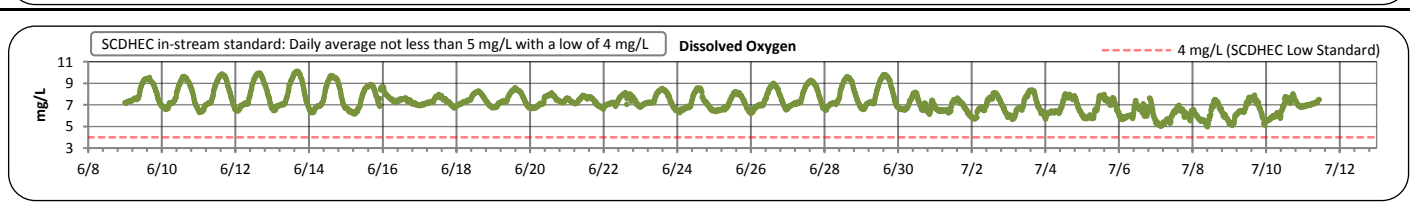
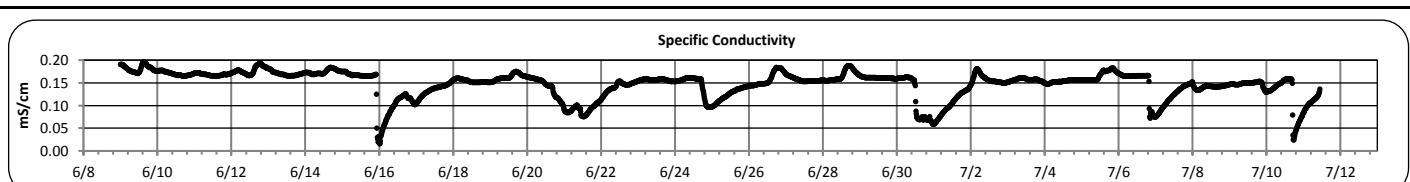
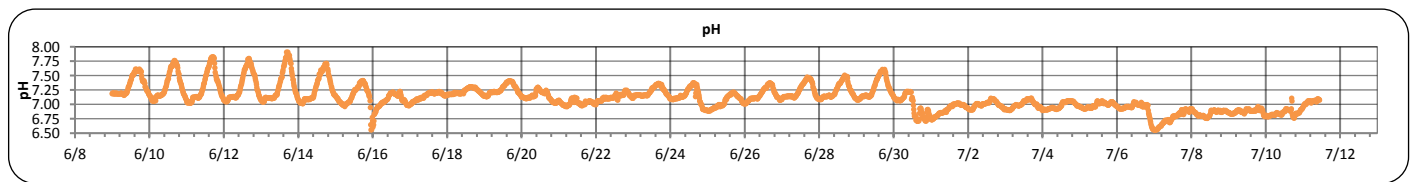
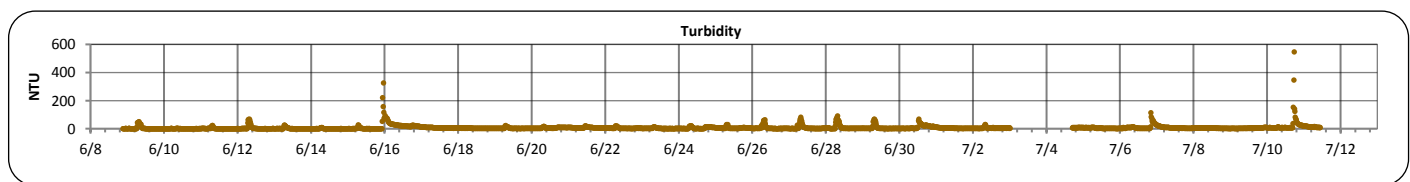
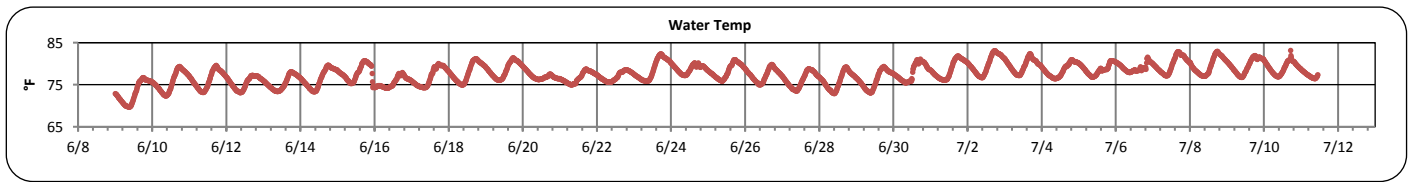
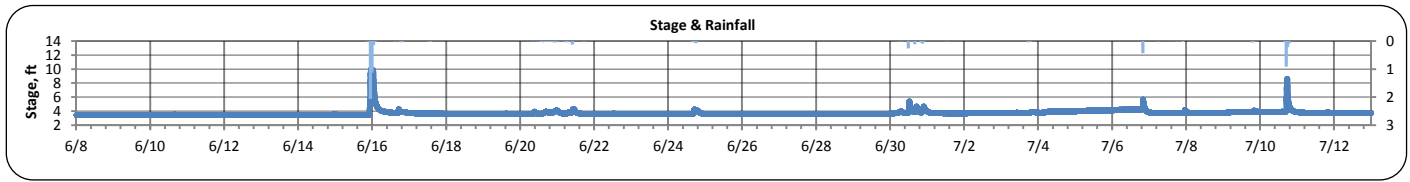
**Grab Sample Data:**

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4	
	Time	Result	Time	Result	Time	Result	Time	Result
<i>Escherichia coli</i> (MPN/100mL)								
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Note:

**Rocky Branch B (June 8, 2017 -- July 12, 2017)**

PARAMETER	DESCRIPTION	CONTINUOUS WATER QUALITY PARAMETERS:	SUMMARY STATISTICS				
			MINIMUM OBSERVED	MAXIMUM OBSERVED	MEDIAN OBSERVED	MEAN OBSERVED	STANDARD DEVIATION
STREAM NAME:	Rocky Branch	STAGE (FT):	3.4	10.1	3.6	3.7	0.4
LOCATION:	Olympia Ave Crossing	TEMPERATURE (°F):	70	83	78	78	2
ADDRESS:	510 Heyward St Columbia, SC 29201	TURBIDITY (NTU):	1	548	4	8	18
COORDINATES:	33.982578, -81.035036	pH:	6.6	7.9	7.1	7.1	0.2
TMDL/IMPAIRMENT:	Fecal Coliform	SPECIFIC CONDUCTIVITY (mS/cm):	0.016	0.196	0.156	0.147	0.030
NEIGHBORING LANDUSE:	Residential and commercial	DISSOLVED OXYGEN (mg/L):	5.0	10.2	7.2	7.3	1.0
SPATIAL LOCATION:	Most Downstream Site						
TOTAL NO. STORMS OVER 0.1 INCH:	8						
MAX. DAILY RAINFALL:	3.3 inches						
TOTAL RAINFALL (FOR PERIOD):	6.7 inches						



Note: Data gaps appear when the sonde is removed for calibration or when the flow depth is below the sensors

**Continuous Water Quality  
Monitoring Periodic Report**

**Rocky Branch B (June 8, 2017 -- July 12, 2017)**

**Explanation of Statistics:**

<b>MINIMUM OBSERVED</b>	The minimum of the values recorded by the datasonde in 15 minute intervals.
<b>MAXIMUM OBSERVED</b>	The maximum of the values recorded by the datasonde in 15 minute intervals.
<b>MEDIAN OBSERVED</b>	The median of all the values recorded by the datasonde in 15 minute intervals.
<b>MEAN OBSERVED</b>	The average of all the values recorded by the datasonde in 15 minute intervals.
<b>STANDARD DEVIATION</b>	The standard deviation of all the values recorded by the datasonde in 15 minute intervals.

**Sampled Data:**

Analyte (units)	Sample 1		Sample 2		Sample 3		Sample 4	
	Time	Result	Time	Result	Time	Result	Time	Result
<i>Escherichia coli</i> (MPN/100mL)								
Total Suspended Solids (mg/L)								
Total Phosphorus (mg/L)								
Total Nitrogen (mg/L)								

Note: